

Program Description/Textbook or Print Instructional Material

Vendor: Pearson Education, Inc., publishing as Pearson Prentice Hall **Web Address:** www.phschool.com

Title: **Prentice Hall Technology Education: Learning By Design**

Author: Michael Hacker and David Burghardt **Copyright:** 2004

ISBN: 0-13-06353-7 **Course/Content Area:** Survey of Technology

Intended Grade or Level: 6-9 **Readability Level:** 6-7

List Price: \$ 61.29 **Lowest Wholesale Price:** \$ 45.97

Level of Accommodations (Level One, Two, or Three) Three

If Level Two or Three, please provide rationale for not meeting Level One Compliance. Pearson Prentice Hall is unable to provide files in Levels One or Two due to the variety of page layout systems used to create the text. These systems are not compatible with specialized formats such as XML or HTML.

FEATURES

DISCLAIMER: The features of each book or program were developed by the publisher and do not reflect the opinion of the State Review Team, State Textbook Commission, nor of the Kentucky Department of Education.

Content

Technology Education uses an informal design approach throughout the text; the methodology has been developed and validated through several National Science Foundation funded projects directed by the authors. The approach emphasizes design challenges that rely on math and science knowledge to improve design performance. The text is based on the Benchmarks for Learning which emphasizes technological literacy. Each chapter opens with a real-world connection and each section begins with a set of benchmarks for learning. Each section provides a reading strategy to guide students as they read and retain the chapter material. A 3-D interactive Web-based animation lets students see things come alive on the Web.

Student Experiences

Students using these materials will experience a hands-on approach which draws them into technology. Connecting to MST engages students in fun activities showing how technology relates to other curricular areas. Students will also enjoy working through the Student Activity Guide.

Assessment

Assessment is built into the materials with hands-on practice and assessment at the end of each chapter. Each exercise presents interesting technical challenges that students devise a solution to through their own discovery. A formal assessment Test Bank is also available.

Organization

The text is organized into 7 units with 18 chapters. Design activities are in each chapter and each chapter gives a point-by-point summary of key concepts. A crossword puzzle reinforces key concepts in a game that is fun and challenging. A Student Activity Guide is also available for additional materials.

Resource Materials

- **Gratis Items To Be Provided And Under What Conditions**

Free upon request, 1 per teacher user with a minimum purchase of 20 Prentice Hall Technology

Education Student Editions:

- Annotated Teacher Edition
- Teacher's Resource Binder
- Test Bank with ExamView Software
- Timeline Poster
- Student Activity Book

- **Available Ancillary Materials**

RESEARCH DATA/EVIDENCE OF EFFECTIVENESS

DISCLAIMER: The research data and evidence of effectiveness was provided by the publisher and does not reflect the opinion of the State Review Team, State Textbook Commission, nor of the Kentucky Department of Education.

The text materials and all ancillaries have been thoroughly reviewed by professionals in the field of technology as well as by educators who have correlated the materials with good teaching methodology.

The methodology in this text has been developed and validated through several National Science Foundation funded projects directed by the authors. The approach emphasizes design challenges that rely on math and science knowledge to improve design performance. The text is based on the Benchmarks for Learning (*The Standards for Technological Literacy: Content for the Study of Technology*) which emphasizes technological literacy.



Group V - Career/Technical Vocational/Practical Living Education Instructional Materials Evaluation Tool Technology Education



Title: Technology Education: Learning By Design \$54.97

Publisher: Pearson Education/Prentice Hall

Item Evaluated: Student Text/Teacher Text/Student Activity Guide

Copyright Date: 2004

Evaluator: Kay Turner

Content Level: 6-8

Date of Evaluation 7/29/03

Level of Alternative Format

Level 1 – Full Compliance

Level 2 – Provisional Compliance

Level 3 – Marginal Compliance

This section completed by Exceptional Children Services

Overall Strengths and/or Weaknesses

Disclaimer: Comments on the strengths and/or weaknesses of each book, material or program were written by members of the State Textbook/Instructional Materials Review Team and reflect their opinions . They do not reflect the opinions of the State Textbook Commission nor the Kentucky Department of Education. In addition, the State Textbook/ Instructional Materials Review Team completed each evaluation form during the week of July 28-Aug. 1, 2003. In order to maintain the integrity of the of the review team's comments, editing was limited to spelling and punctuation.

Recommendations:

☒ Recommended by reviewers to State Textbook Commission

☐ Not recommended by reviewers to State Textbook Commission

Publisher's Explanation of Reviewer's Comments: By action of the State Textbook Commission, publishers are provided limited space, 150 words, to respond to what they may consider factual errors made by the reviewers in the evaluation.



Group V - Career/Technical Vocational/Practical Living Education Instructional Materials Evaluation Tool Technology Education



Title: Technology Education: Learning By Design	Publisher Pearson Education/Prentice Hall
---	---

Technology Management Summary Data:	20 possible points	___15___ points earned
Technology Management Comments:		
Technology Presentation/Interface Summary Data:	40 possible points	___34___ points earned
Technology Presentation/Interface Comments:		
Content Summary Data:	20 possible points	___18___ points earned
Content Comments:		
Instruction & Management Summary Data	52 possible points	___45___ points earned
Instruction & Management Comments:		
Organization & Structure Summary Data	36 possible points	___30___ points earned
Organization & Structure Comments:		
Resource Material Summary Data	40 possible points	___35___ points earned
Resource Material Comments:		



Group V - Career /Technical & Vocational/Practical Living

Electronic Instructional Media Review Form

Stand Alone/Independent or Integrated Software for Technology Education



Equipment (circle or change fill color)	Grade Level (circle or change fill color)	Audience (circle or change fill color)	Format (circle or change fill color)	Cost _____	
Windows	Primary	Individual	Stand Alone/Independent	_____ single copy	_____ site license
Macintosh	Intermediate	Small Group	Integrated	_____ network version	_____ school version
CD-ROM	Middle	Large Group	Supplemental	_____ lab pack of _____ copies	_____ x _____ online
DVD	High		In lieu of basal test		
Sound					
Other					

If other, explain _____

Type of Software: Check all that apply	_____ Simulation	_____ Management	_____ Interdisciplinary	_____ Problem Solving	_____ Tutorial
_____ Exploratory	_____ Creativity	_____ Drill and Practice	_____ Critical Thinking	_____ Utility	_____ x _____ Other:

Rating Scale:	3—Some of the time	1—None of the time
4—All or the time	2—Minimally	0— Not applicable

Management	Rating
Allows customizing for individual learning needs.	3
Allows students to exit and resume at a later time.	4
Keeps a students performance record, where needed.	0
Allows control of various aspects of the software (e.g., turning sound off).	0
Allows for printed reports.	0
Comments: No CD Included	Total 7

Presentation/Interface	Rating
Presents material in an organized manner.	3
Has consistent, easy-to-use, on-screen instructions.	3
Has developmentally correct presentation format.	3
Adapts to different learning environments (learning styles/multiple intelligences, etc.)	2
Accessible for special needs students.	3
Runs smoothly, without long delays.	3
Presents easy-to-view text and graphics.	3
Presents easy-to-hear and understand sounds.	3
Avoids unnecessary screens, sounds, and graphics.	3
Provides immediate, appropriate feedback.	2
Comments:	Total 28

Content—Technology Education	Rating
Nature of Technology	2
Technology and Society	2
Design	3
Abilities for a Technological World	3
The Design World	3
Comments:	Total 13

Rating Scale:	2—Minimally
4—All or the time	1—None of the time
3—Some of the time	0— Not applicable

Instruction and Assessment	Rating
Identifies a Sense of Purpose	3
Builds on Student Ideals	3
Engages Students	3
Develops Technology Ideas	3
Promotes Student Thinking	3
Assesses Student Progress	3
Enhances The Learning Environment	4
Reading level is appropriate for interest and ability level of intended student group; level remains consistent throughout.	3
Commonwealth Accountability Testing System (CATS) "like" Assessment is provided	4
Variety of Assessments (diagnostic, formative, summative, open response, multiple choice, individual, small group, oral, demonstrations, presentations, self and peer performance, portfolio prompts) is included.	3
Includes activities and opportunities for integration of technology.	3
Reflects researched-based practices (e.g. hands-on activities, technology, problem-solving situations)	4
Differentiation techniques and activities suggested.	4
Comments:	Total 43

Rating Scale:	3 – Some potential for learning	1 - Not present
4 – High potential for learning	2 – Little potential for learning	0 – Not applicable

Organization and Structure	Rating
Organization is logical and allows for spiraling of content.	3
Vocabulary and key terms are clearly defined and easily accessible within each lesson.	4
Visual illustrations (e.g. graphs, charts, models) and examples are clearly presented and content-related.	2
Illustrations and language reflect diversity (e.g. racial, ethnic, cultural, age, gender, disabilities).	2
Legible type, length of lines, spacing, and page layout and width of margins contribute to overall appearance and use.	3
Student materials seem durable and conducive to daily use.	4
Includes sufficient glossary, index and appendices.	4
Employs accurate grammar and spelling	4
Organization of material can be effectively used with Standards Based Units, Core Content and Program of Studies.	4
Comments:	Total 30

Resource Materials	Rating
Teacher materials coordinate easily with student materials (e.g. additional resources included at point of need, student pages shown, integration of technology indicated)	3
Activities are included that adapt to the various learning styles, intelligences, and interest/ability levels.	2
Extension activities including adaptations and accommodations for students with special needs.	2
Resources provide objectives, background information, common student errors, hints, advice for lesson implementation and real-world connections, connections with career and/technology and references (e.g. solution manuals, study guides)	3
Suggestions are made for integration of themes and /or interdisciplinary instruction.	4
Integration opportunities suggested and examples given.	3
Teacher resources are available online.	3
Online resources available – Repeat of information in text.	2
Online resources available – Practice skills only.	3
Online resources available – New application materials.	3
Comments:	Total 28

Rating Scale:	
4—All or the time	2—Minimally
3—Some of the time	1—None of the time
	0— Not applicable